

JULY 2019



**WIM #38
I-535, MP 1.1
DULUTH, MN**

**MONTHLY
REPORT**



Your Destination...Our Priority



WIM Site Location

WIM #38 is located on I-535 near Duluth in St Louis county.

System Operation

WIM #38 was operational for the entire month of July 2019. Volume was computed using all monthly data.

System Calibration

WIM #38 was most recently calibrated on 2017-01-23. Table 1 summarizes the front axle weights of class 9s by lane ¹. Figure 1 shows the distribution of gross vehicle weights (GVW) in Class 9 vehicles at this site for the last 12 months of operation ². Figure 2 depicts the average front axle weight as a percent difference from the first full month following calibration.

Summary of Volume Statistics

Total Monthly Volume: 1170433 | Passenger Vehicles: 1105891 | Heavy Commercial Vehicles: 64542

Monthly Average Daily Traffic (MADT): 37756 | Monthly Heavy Commercial Average Daily Traffic (MHCADT): 2082

See Table 2 for vehicle class breakdown

Passenger Vehicles (PVs) and Heavy Commercial Vehicles (HCVs)

Volume trends. NB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Sundays. SB vehicles typically reached highest volume levels on Fridays, with lowest volumes reported on Sundays (see Figure 3 and 4).

Passenger Vehicles (PVs)

Volume trends. On an average 24-hour day (see Figure 5), NB PVs generally reached peak volume levels between 03 PM and 05 PM. Similarly, SB PVs peaked in volume between 03 PM and 05 PM

Heavy Commercial Vehicles (HCVs)

Volume trends. On an average 24-hour day, HCVs traveling NB typically reached peak volume levels between 03 PM and 05 PM, while volume going SB peaked between 03 PM and 05 PM. See Figure 6. Out of all HCVs, the two highest traffic volumes were generated by Class 9's and Class 5's.

Overweight HCVs

Volume trends. Of a total of 64542 HCVs, 3392 of them were overweight ³. These overweight HCVs contributed to 0.3% of total monthly volume, and 5.5% of total monthly

HCV volume. NB overweight vehicles typically reached highest numbers on Tuesdays, with lowest volumes reported on Sundays. SB overweight vehicles tended to reach highest volumes on Tuesdays, with lowest volumes reported on Sundays. See Figure 3 .

The top two overweight violators by class were the class 9 and class 6 vehicles . Overall, overweight vehicles tended to reach peak volume concentrations during typical business hours, with 54.3% of all overweight vehicles traveling NB this month (see Figure 7 & 8). Figure 9 shows the number of vehicles exceeding 88,000 pounds that crossed the WIM over the last 12 months. The highest number of 88,000+ vehicles within the last 12 months occurred in July.

WIMs are currently used as a screening tool for weight enforcement, and it is estimated that the WIM scales can measure gross vehicle weights (GVW) within 90-95% of static weight scale measurements. Due to the possibility of measurement error, vehicles exceeding 10% of their legal weight limits (or 1.1 times their legal weight limits) are considered overweight in this report ⁴.

Using normal load limits ,43 NB vehicles exceeded 88,000 pounds (23 vehicles were Class 10's; 20 vehicles were Class 13's). Of vehicles traveling SB,

187 NB vehicles exceeded 88,000 pounds (144 vehicles were Class 10's; 27 vehicles were Class 13's). Refer to Table 3 for the Top 10 highest recorded GVWs from Classes 9 and 10 from July 2019.

Loaded vs. Unloaded HCVs. Figure 10 shows the GVW distributions of Class 9s and 10s in July 2019. Data suggests that there were greater numbers of fully_loaded Class 9's than empty Class 9's traveling NB, while there were more fully_loaded Class 9's than empty traveling SB. Data also suggests that there were more fully_loaded Class 10's than empty traveling in the NB direction. In the SB direction, there were more fully_loaded class 10 vehicles.

Freight Totals. A total of 438873 tons of freight was recorded to have crossed the WIM. More freight was shipped SB (52.9%) than NB (47.1%). See Table 4 and Figure 11 for more freight information.

####Infrastructure Considerations Bridge. Bridge No. 9030 (Blatnik Bridge) is approximately 1.1 miles south of WIM #38, and Bridge No. 69808 is 0.45 miles south of WIM #38. A pair of bridges also exists 0.4 miles north of WIM #38 (Bridge No. 69801C on the NB side and Bridge No. 69801N on the SB side). WIM #38 recorded a total of 1170433 vehicles with a combined GVW of 7153618 kips (1 kip = 1,000 pounds = 0.5 tons) in July 2019. See Table 5 and Figures 12-13 for GVW information by vehicle class and lane.

Pavement Design. A total of 37811 equivalent single axle loads (ESALs) passed over the pavement at this site. Approximately 51.2% of all ESALs were recorded SB while 48.8% was observed NB. In particular, 54% of all ESALs were generated by the Class 9's (Class 9's were also responsible for generating 17% of total GVW observed this month). See Table 6 and Figures 14-15 for more information on ESALs (Table 6 also provides flexible ESAL factors for each vehicle class using a terminal serviceability of 2.5 and a structural number of 5).

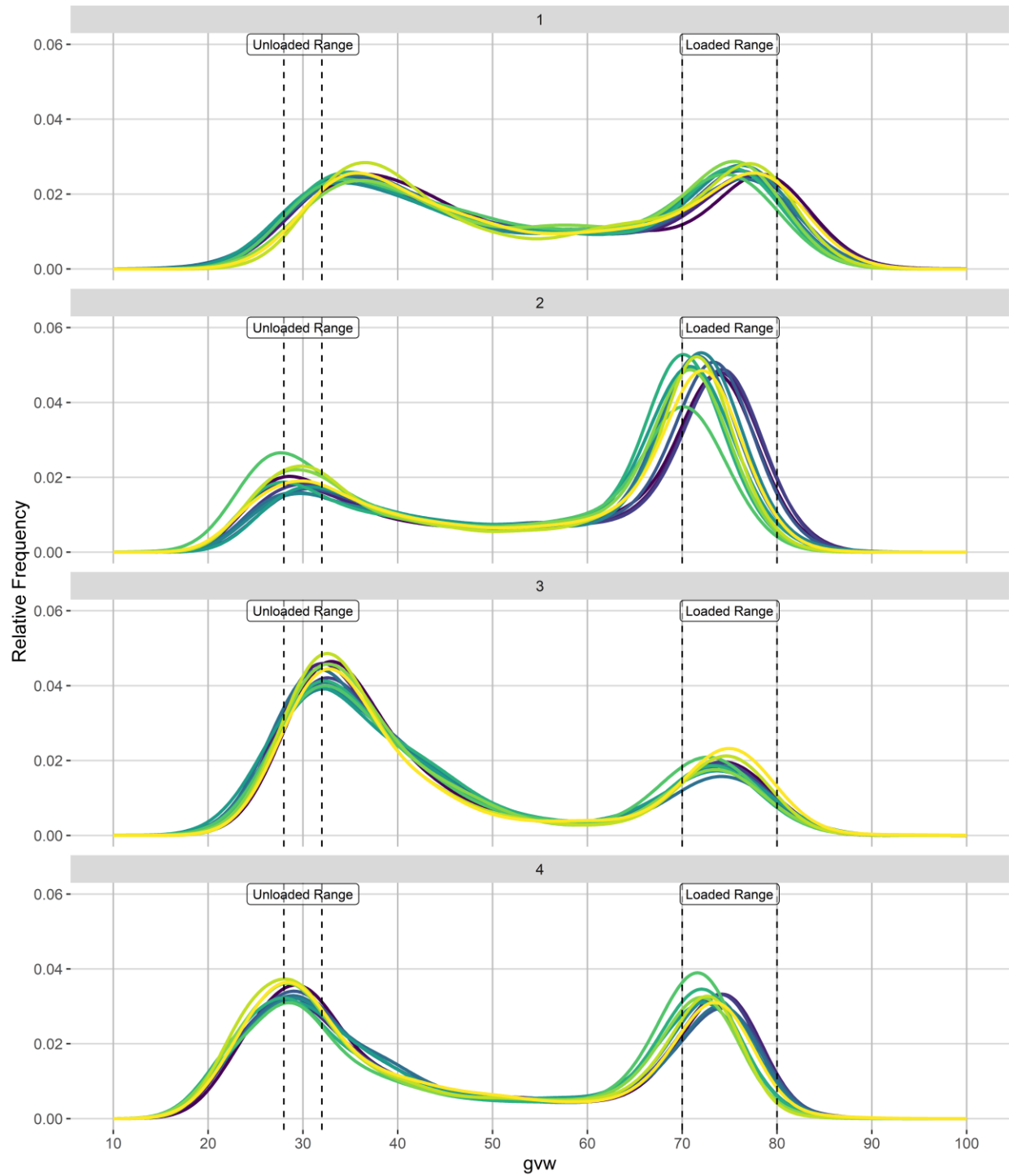
#####WIM monthly reports can be found at:

<http://www.dot.state.mn.us/traffic/data/reports-monthly-wim.html> MnDOT's vehicle classification scheme and vehicle class groupings for traffic forecasting can be found at: <http://www.dot.state.mn.us/traffic/data/data-products.html#weight>

- ¹ Front axle weights of Class 9s are monitored on a monthly basis to assure performance between calibrations. The current goal of the WIM scale calibration is to have each individual axle weight stay within a range of ±9% of baseline calibration values
- ² Previous WIM research indicates that unloaded Class 9s typically weigh 28-32 kips, while loaded Class 9s generally fall in the 70-80 kip range. More recent data from several WIM sites suggests that the unloaded Class 9 range may have moved a little higher over time (due to increased presence of sleeper cabs, etc.), although these ranges are also thought to be site-specific.
- ³ An HCV is considered overweight during normal load limits in this report if they satisfy any of the following 1) exceed a gross vehicle weight (GVW) of 80,000 pounds, 2) exceed any of the legal weight maximums on any axle configurations (legal maximums are: single axle = 20,000 pounds; tandem axles spaced 8' or less = 34,000 pounds; tridem axles spaced 9' or less = 43,000 pounds; quad axles spaced 13' or less = 51,000 pounds). Monthly reports use this standard regardless of the time of year however, the Winter Load Increase (WLI) allows a 10% across the board increase in axle and gross vehicle weights without a permit on US, state routes, and county roads. An HCV is considered overweight during Winter Load Increase(WLI) if they satisfy any of the following 1) exceed a gross vehicle weight (GVW) of 88,000 pounds, 2) exceed any of the legal weight maximums on any axle configurations (legal maximums are: single axle = 22,000 pounds; tandem axles spaced 8' or less = 37,400 pounds; tridem axles spaced 9' or less = 47,300 pounds; quad axles spaced 13' or less = 56,100 pounds). An overweight HCV is only included once in the overweight volume calculations regardless of how many of the aforementioned conditions are violated. For information on MN weight limit dates and statutes: http://www.mrr.dot.state.mn.us/research/seasonal_load_limits/sllindex.asp
- ⁴ For example, Class 9s and 10s can legally have gross vehicle weights up to 80,000 lbs (with the exception of permitted loads) during normal load limits. To account for measurement error on the WIM scales, those exceeding 10% of the legal GVW maximum (or 1.1 times the legal GVW) should be screened (e.g., 80,000 lbs + 8,000 lbs = 88,000 lbs). Similarly during WLI vehicles weighing 96,800 lbs should be screened.

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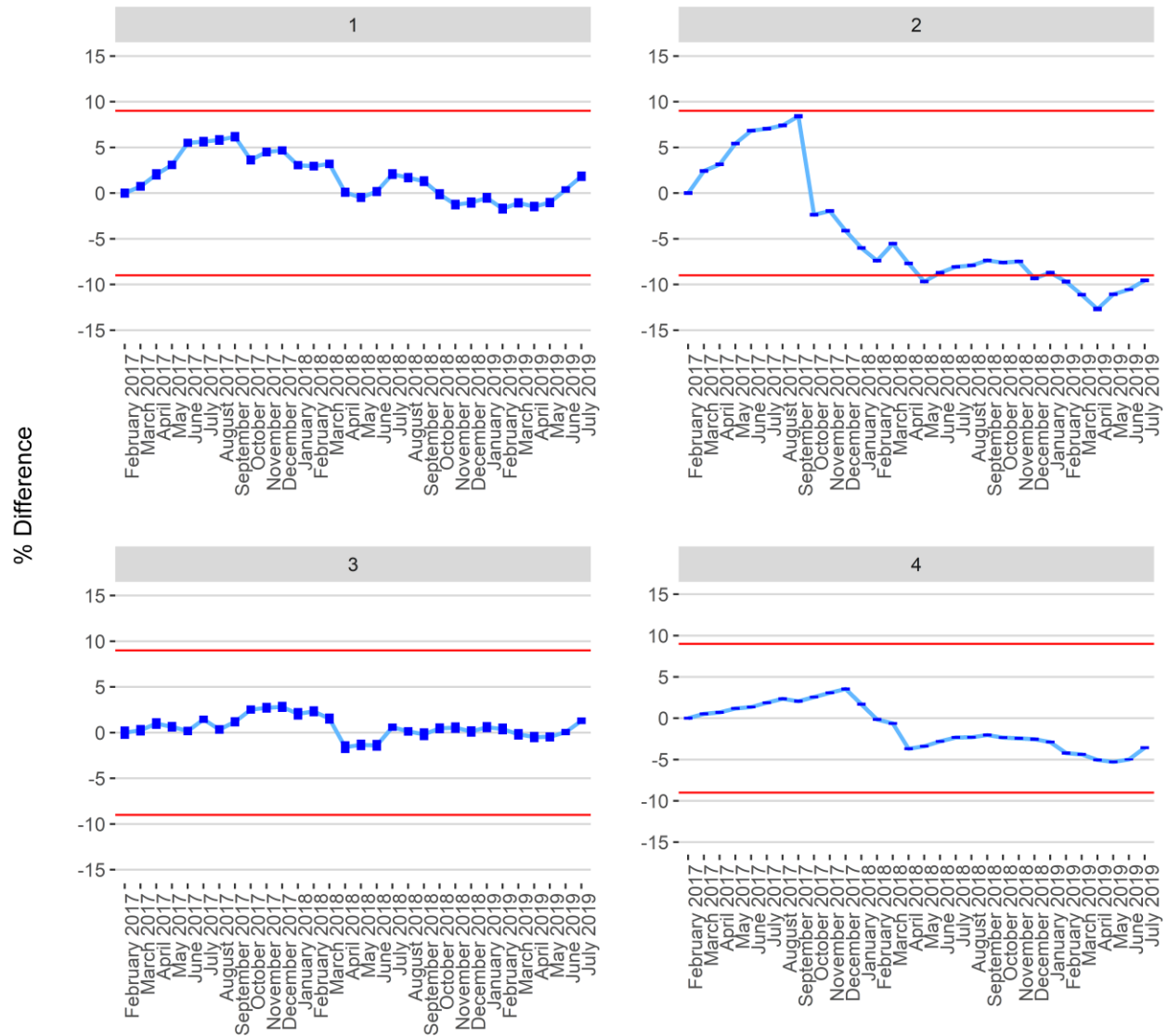
Figure 1 - Monthly Class 9 GVW Histogram



August 2018	November 2018	February 2019	May 2019
September 2018	December 2018	March 2019	June 2019
October 2018	January 2019	April 2019	July 2019

Months that have not passed QC parameters are not displayed

Figure 2 - Percent Difference of Front Axle Weight from
Last Calibration (+/- 95% CI)



Months that have not passed QC parameters are not displayed

Figure 2 - Average Vehicle Volume
vs. Day of the Week

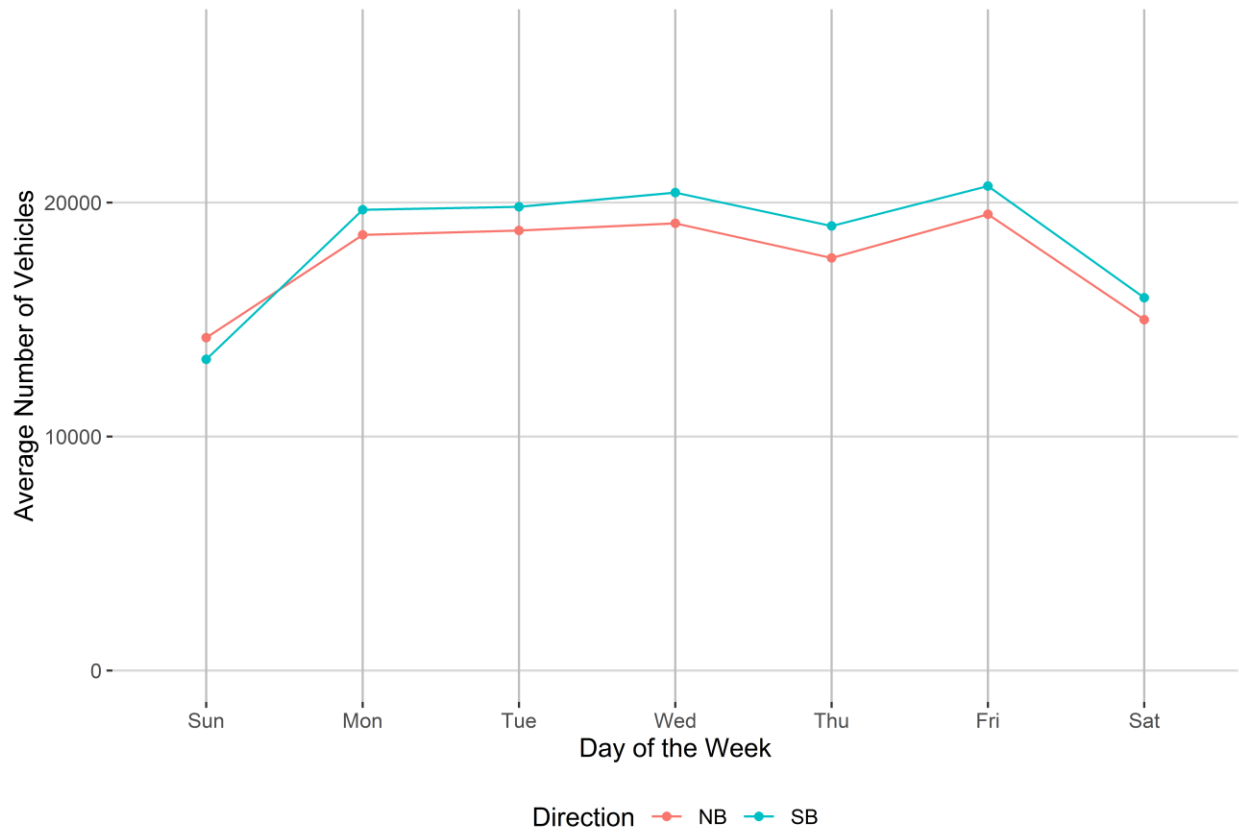


Figure 3 - Average Overweight Vehicle Volume
vs. Day of the Week

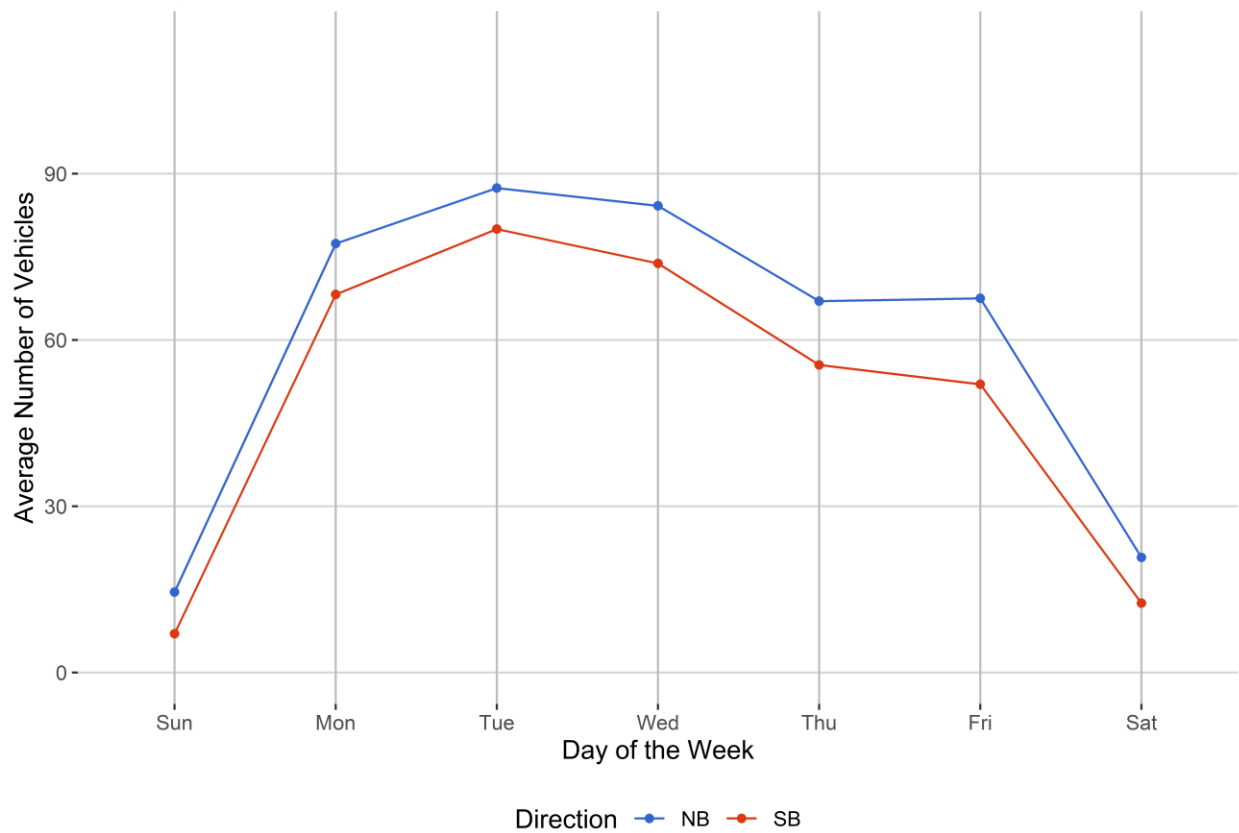


Figure 4 - Passenger Vehicles
vs. Hour of the Day

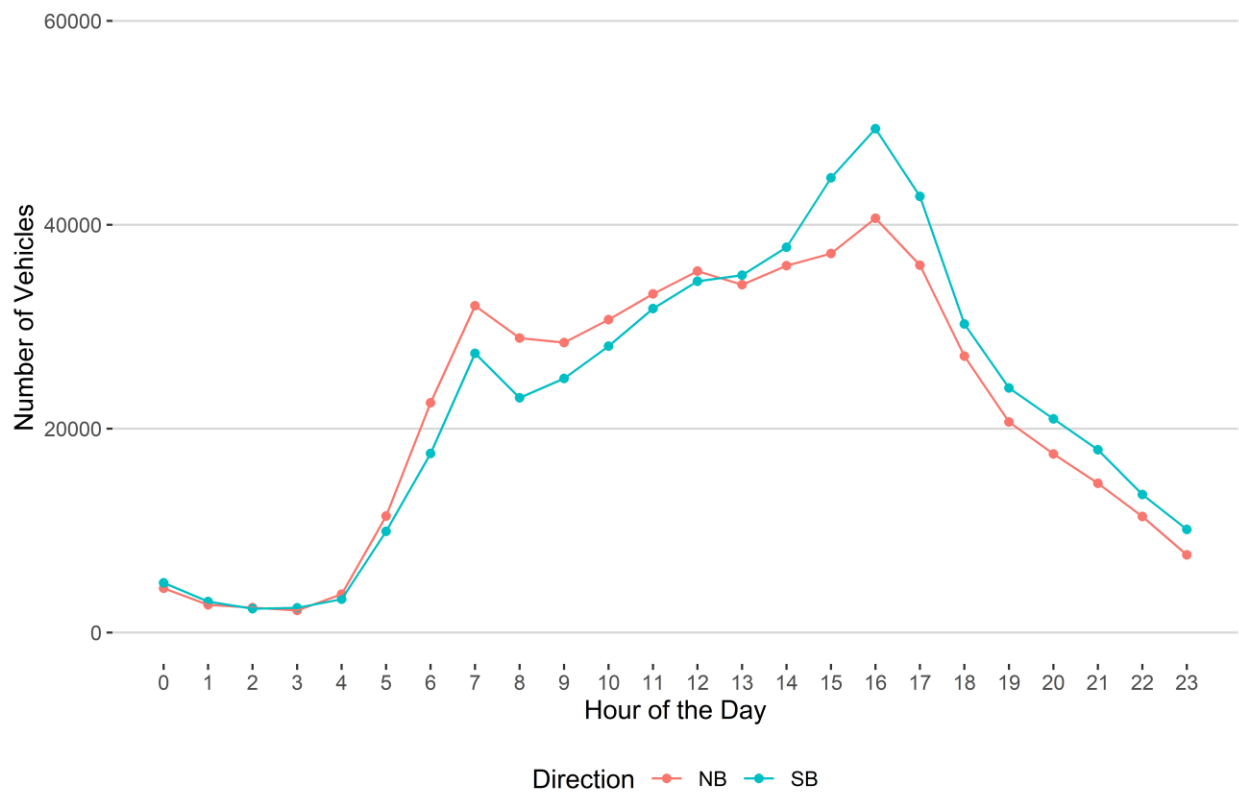


Figure 5 - Heavy Commercial Vehicles
vs. Hour of the Day

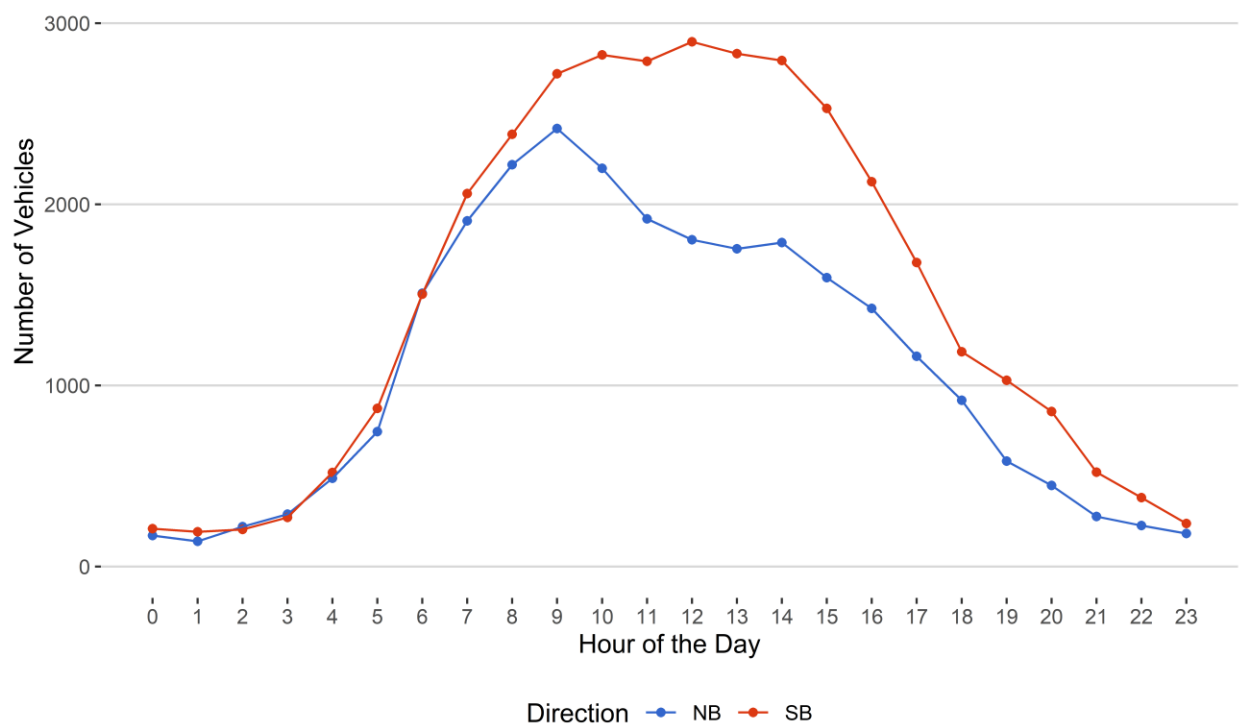


Figure 6 - Overweight Vehicles by Class
vs. Hour of the Day

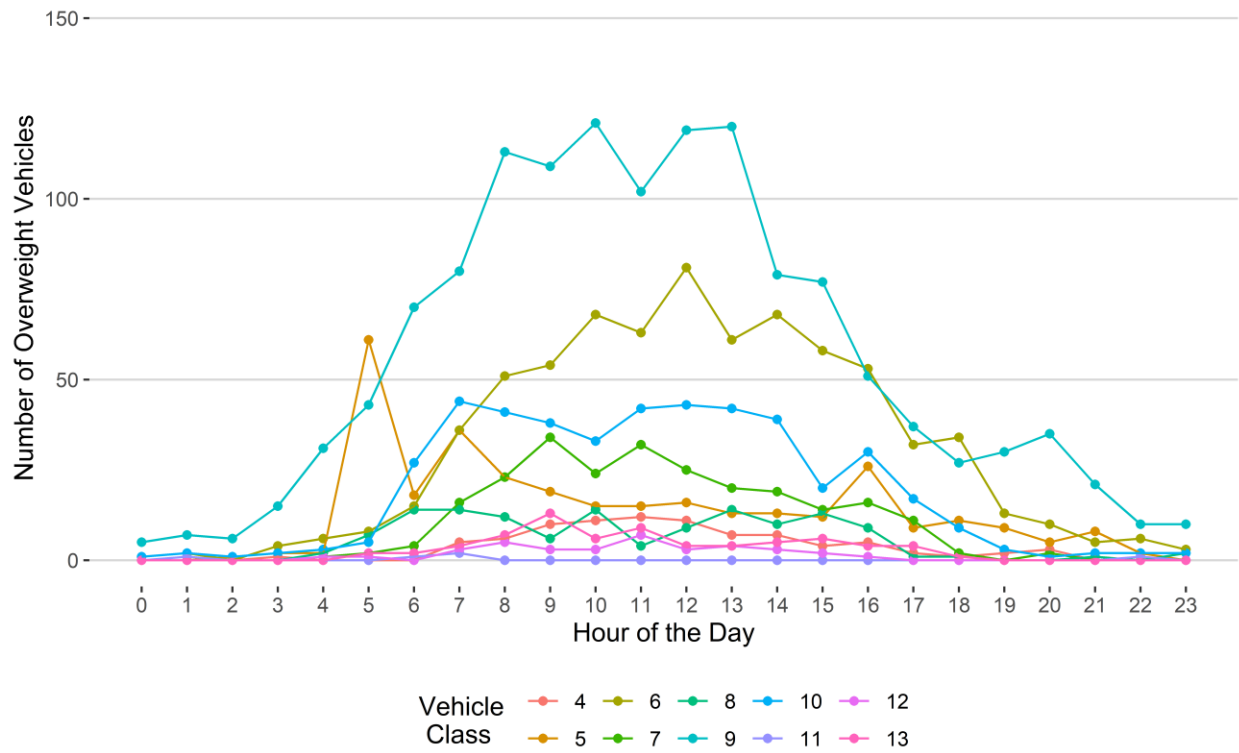


Figure 7 - Overweight Vehicles by Direction
Hour of the Day

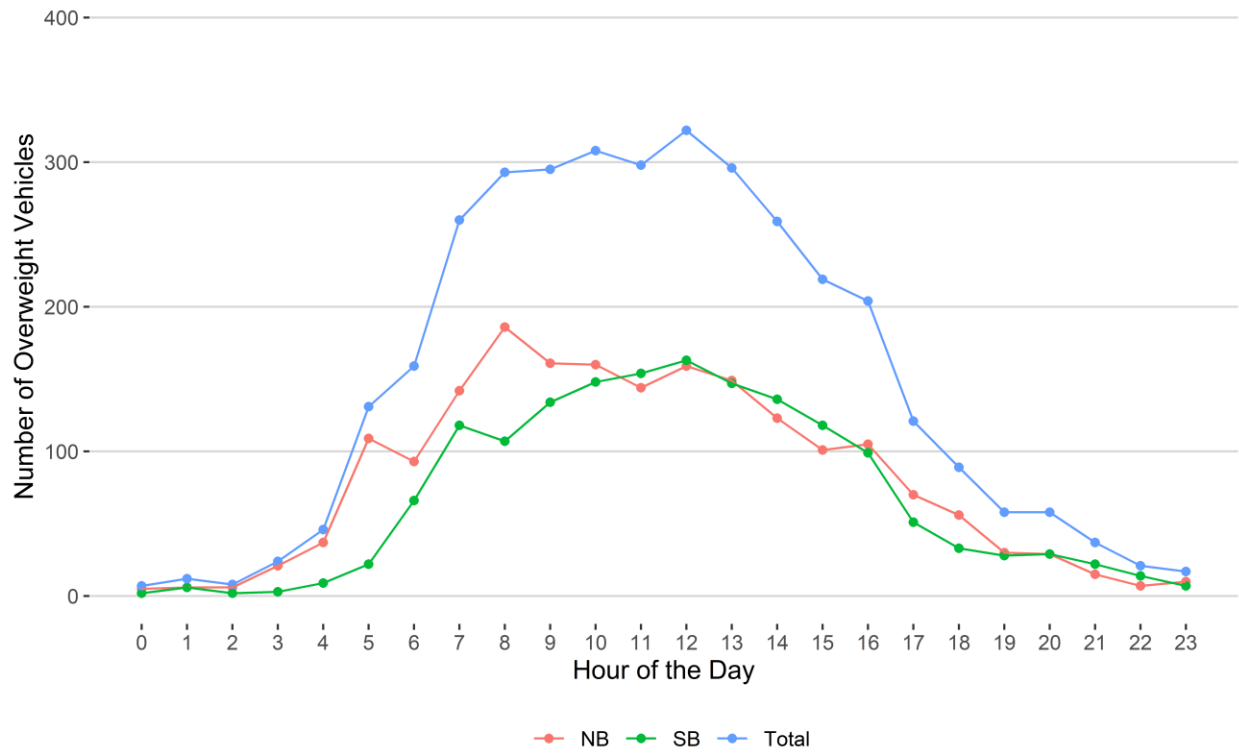
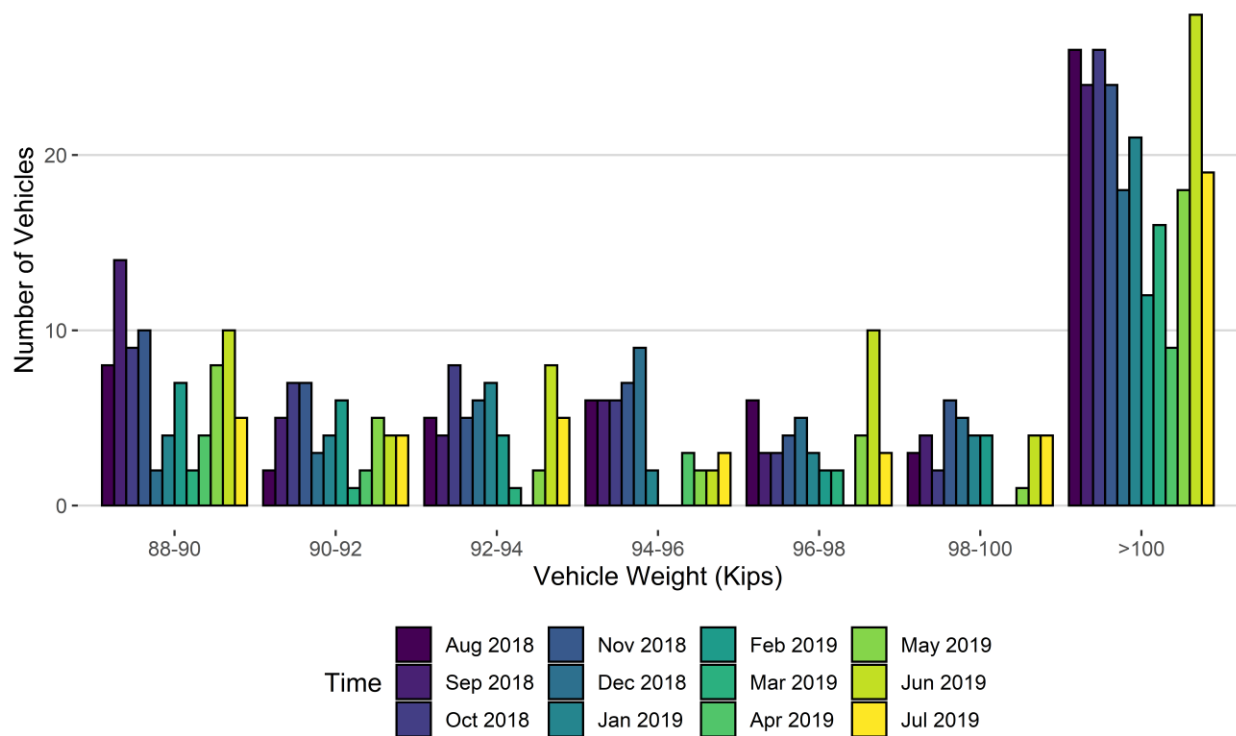
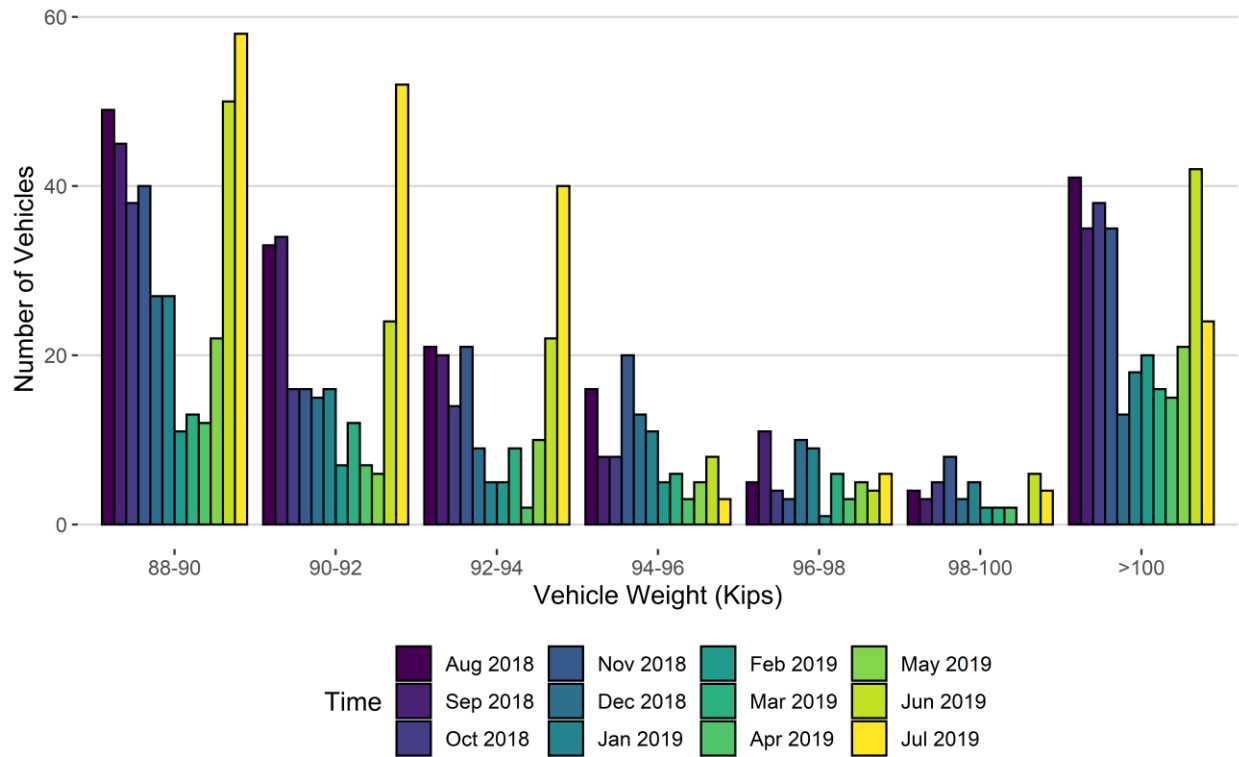


Figure 8 - Histogram of NB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019
88-90	8	14	9	10	2	4	7	2	4	8	10	5
90-92	2	5	7	7	3	4	6	1	2	5	4	4
92-94	5	4	8	5	6	7	4	1	0	2	8	5
94-96	6	6	6	7	9	2	0	0	3	2	2	3
96-98	6	3	3	4	5	3	2	2	0	4	10	3
98-100	3	4	2	6	5	4	4	0	0	1	4	4
>100	26	24	26	24	18	21	12	16	9	18	28	19
Total	56	60	61	63	48	45	35	22	18	40	66	43

Figure 8 - Histogram of SB Vehicles Over 88,000 Pounds for Current Month



Vehicle Weights (Kips)	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019
88-90	49	45	38	40	27	27	11	13	12	22	50	58
90-92	33	34	16	16	15	16	7	12	7	6	24	52
92-94	21	20	14	21	9	5	5	9	2	10	22	40
94-96	16	8	8	20	13	11	5	6	3	5	8	3
96-98	5	11	4	3	10	9	1	6	3	5	4	6
98-100	4	3	5	8	3	5	2	2	2	0	6	4
>100	41	35	38	35	13	18	20	16	15	21	42	24
Total	169	156	123	143	90	91	51	64	44	69	156	187

Figure 8 - Class 9's and 10's by Direction
vs Gross Vehicle Weight

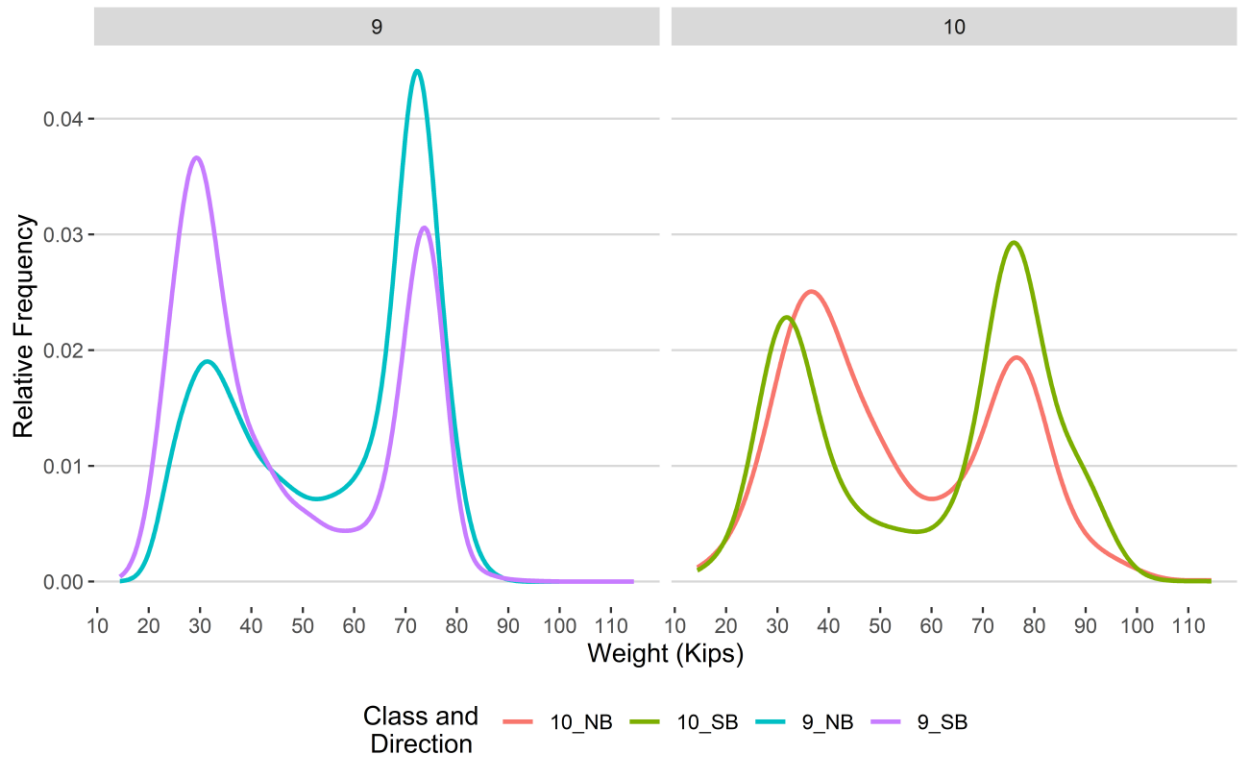


Figure 9 - Freight Percentage
by Direction and Class

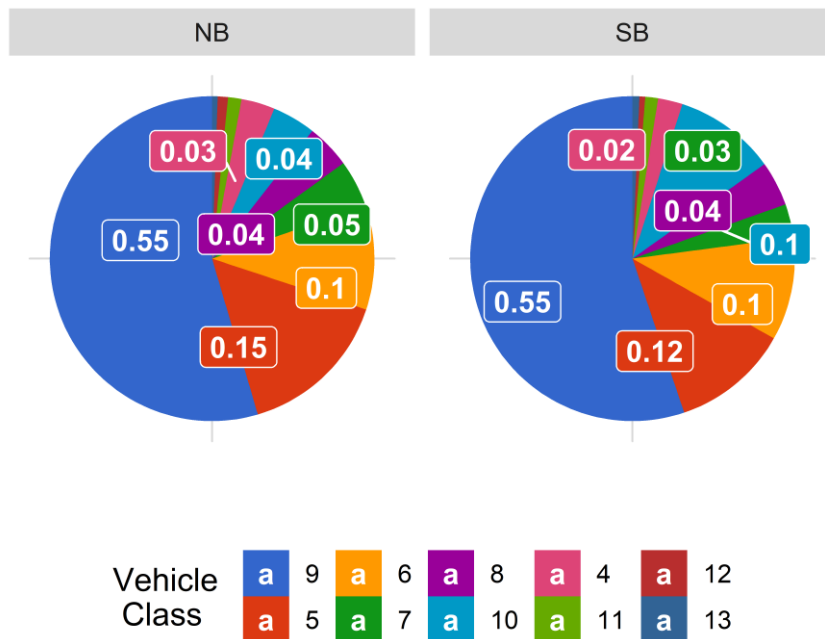


Figure 10 - Total Gross Vehicle Weight Percentage by Class and Lane

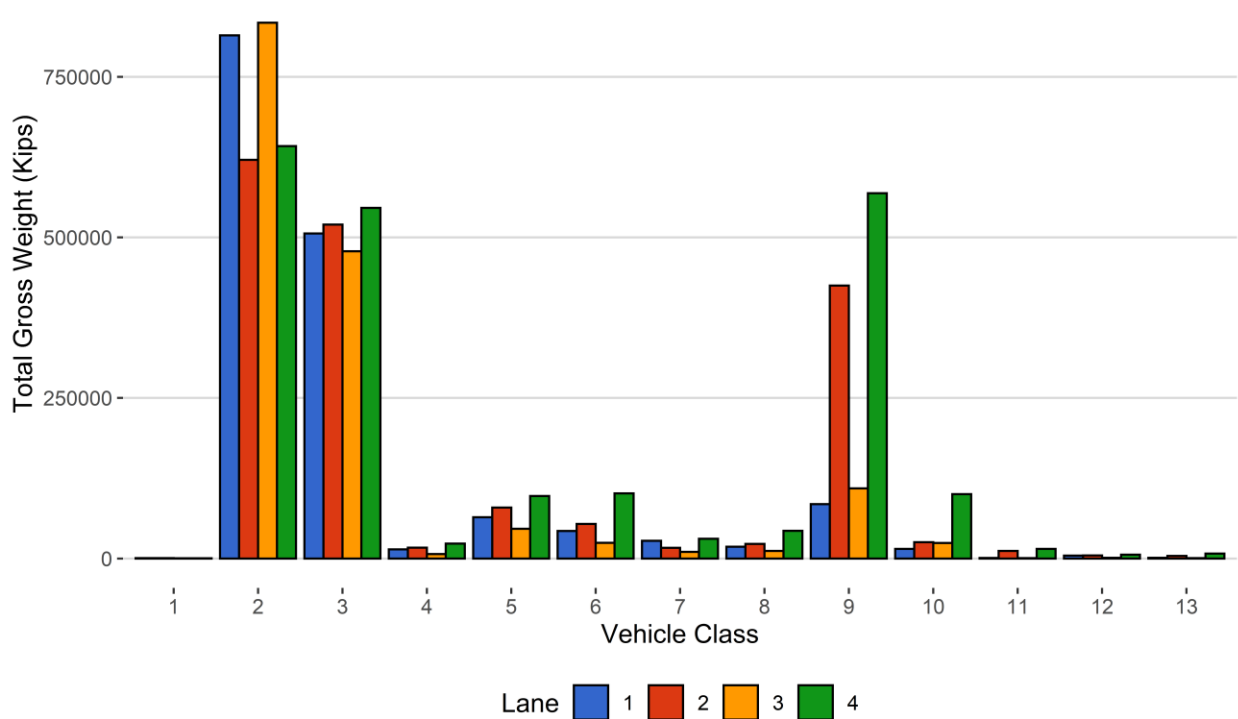


Figure 11 - Total Gross Vehicle Weight t

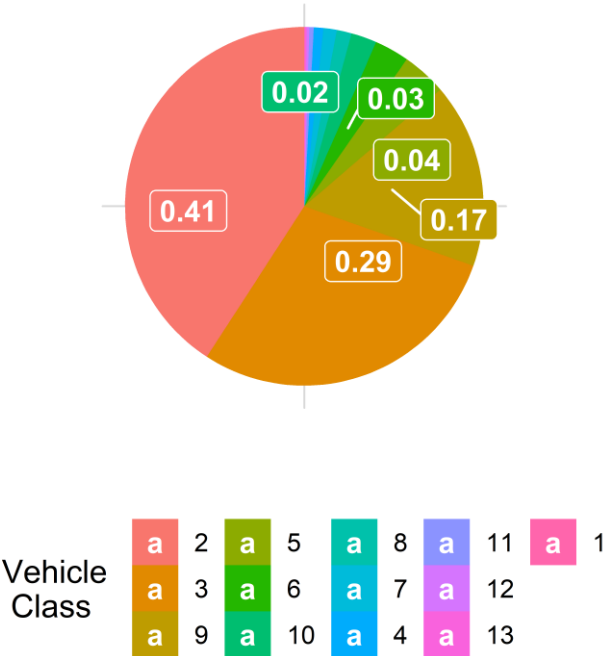


Figure 12 - Total ESALs by Class and Lane

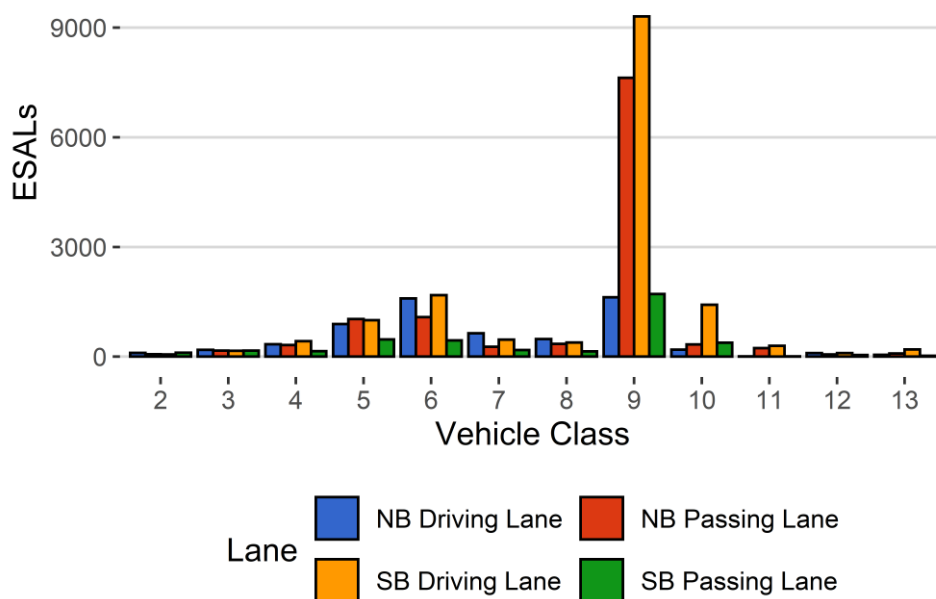


Figure 13 - ESALs by Class

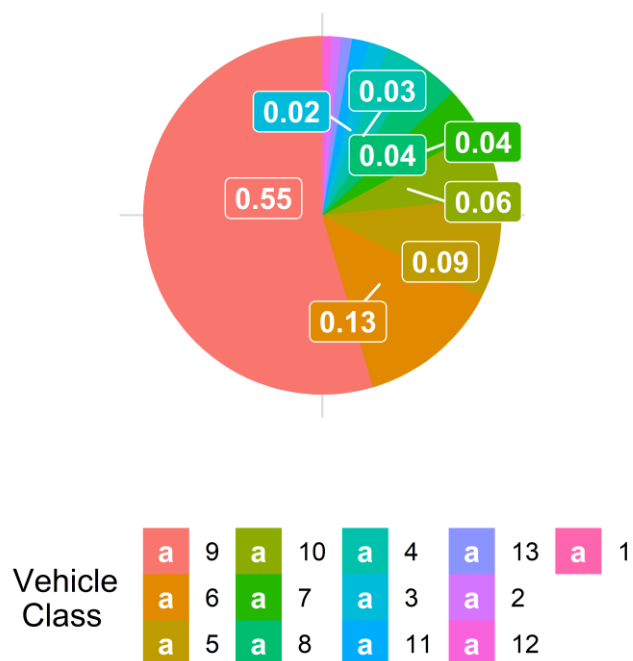


Table 1 Class 9 Front Axle Weight by Lane

<i>Month</i>	<i>Lane 1 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 2 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 3 (Kips)</i>	<i>Front Axle +/- 9%</i>	<i>Lane 4 (kips)</i>	<i>Front Axle +/- 9%</i>
February 2017	11.58	0.00	11.71	0.00	11.07	0.00	10.45	0.00
March 2017	11.67	0.74	12.00	2.43	11.10	0.26	10.50	0.53
April 2017	11.82	2.05	12.08	3.15	11.18	1.00	10.52	0.71
May 2017	11.94	3.09	12.35	5.42	11.14	0.64	10.57	1.18
June 2017	12.22	5.51	12.51	6.84	11.09	0.18	10.59	1.36
July 2017	12.23	5.63	12.54	7.05	11.23	1.46	10.64	1.87
August 2017	12.25	5.81	12.58	7.41	11.11	0.34	10.69	2.35
September 2017	12.29	6.17	12.70	8.41	11.20	1.18	10.66	2.06
October 2017	12.00	3.63	11.43	-2.37	11.35	2.52	10.72	2.56
November 2017	12.10	4.50	11.48	-1.96	11.37	2.73	10.77	3.08
December 2017	12.12	4.67	11.23	-4.12	11.38	2.82	10.82	3.54
January 2018	11.93	3.05	11.01	-6.00	11.30	2.06	10.63	1.69
February 2018	11.92	2.95	10.85	-7.39	11.33	2.33	10.43	-0.15
March 2018	11.95	3.20	11.06	-5.53	11.24	1.53	10.38	-0.63
April 2018	11.59	0.09	10.81	-7.70	10.89	-1.59	10.06	-3.69
May 2018	11.52	-0.49	10.58	-9.68	10.92	-1.34	10.09	-3.39
June 2018	11.60	0.17	10.69	-8.71	10.91	-1.39	10.16	-2.80
July 2018	11.82	2.08	10.77	-8.07	11.13	0.60	10.21	-2.33
August 2018	11.78	1.69	10.78	-7.92	11.08	0.13	10.21	-2.30
September 2018	11.73	1.30	10.85	-7.37	11.05	-0.18	10.24	-2.04
October 2018	11.57	-0.12	10.82	-7.60	11.12	0.47	10.20	-2.34
November 2018	11.43	-1.26	10.84	-7.47	11.13	0.55	10.19	-2.43
December 2018	11.46	-1.04	10.62	-9.33	11.08	0.12	10.18	-2.54
January 2019	11.52	-0.51	10.69	-8.70	11.14	0.60	10.15	-2.88
February 2019	11.38	-1.70	10.58	-9.69	11.11	0.40	10.01	-4.22

March 2019	11.46	-1.07	10.41	-11.12	11.05	-0.18	9.99	-4.37
April 2019	11.41	-1.47	10.22	-12.69	11.02	-0.48	9.92	-5.05
May 2019	11.46	-1.03	10.41	-11.07	11.02	-0.47	9.90	-5.29
June 2019	11.62	0.39	10.48	-10.55	11.08	0.07	9.93	-4.99
July 2019	11.79	1.84	10.59	-9.56	11.21	1.30	10.08	-3.57

Table 2 Vehicle Classification Data

<i>Vehicle Class</i>	<i>Monthly Average Daily Volume</i>	<i>Monthly Total Volume</i>	<i>Monthly Total Volume Percentage</i>	<i>Monthly Total Overweight Vehicles</i>	<i>Monthly Total Overweight Percentage</i>
1	50	1563	0.1	0	0
2	24479	758851	64.8	0	0
3	11144	345477	29.5	0	0
4	70	2165	0.2	87	2.6
5	707	21903	1.9	316	9.3
6	234	7261	0.6	732	21.6
7	49	1517	0.1	245	7.2
8	109	3389	0.3	133	3.9
9	783	24269	2.1	1318	38.9
10	96	2982	0.3	449	13.2
11	20	605	0.1	5	0.1
12	9	285	0	36	1.1
13	5	165	0	71	2.1
TOTAL	37756	1170433	100	3392	100

Table 3 Top 10 Gross Vehicle Weight, Class 9 and 10

<i>Date</i>	<i>Day of Week</i>	<i>Time</i>	<i>Vehicle Class</i>	<i>Direction</i>	<i>Lane</i>	<i>GVW (lbs)</i>
2019-07-22	Monday	15:30:17	10	NB	1	134.11
2019-07-03	Wednesday	13:26:38	10	NB	2	132.59
2019-07-02	Tuesday	12:46:18	10	NB	2	130.86
2019-07-03	Wednesday	11:22:25	10	NB	2	128.75
2019-07-03	Wednesday	11:38:30	10	NB	2	128.28
2019-07-02	Tuesday	14:49:54	10	NB	2	125.24
2019-07-10	Wednesday	17:34:02	10	NB	2	123.63
2019-07-22	Monday	15:30:16	10	NB	2	122.73
2019-07-18	Thursday	14:47:02	9	NB	2	120.82
2019-07-24	Wednesday	12:58:06	10	SB	4	120.29

Table 4 Freight Summary

<i>Vehicle Class</i>	<i>Direction</i>	<i>Weight of Empty Vehicle (Kips)</i>	<i>Total Number of Vehicles</i>	<i>Number of Empty Vehicles</i>	<i>Percentage of Empty Vehicles</i>	<i>Total Weight of Vehicles with Freight (Kips)</i>	<i>Total Weight of Empty Vehicles (Kips)</i>	<i>Total Weight of Freight (Tons)</i>
4	NB	15	1021	142	13.9	29463	1828	8139
5	NB	8	10246	1237	12.1	134735	8963	31332
6	NB	19	2842	406	14.3	89869	6851	21792
7	NB	11.5	732	0	0	44175	0	17879
8	NB	31	1306	683	52.3	27780	13329	4233
9	NB	33	9011	1623	18	463635	45938	109916
10	NB	33.5	755	121	16	36999	3448	7880
11	NB	36.5	257	55	21.4	11361	1261	1994
12	NB	36.5	157	12	7.6	9146	278	1927
13	NB	31.5	59	0	0	5176	0	1659
TOTAL	****	****	26386	4279	****	852340	****	206750
<i>Vehicle Class</i>	<i>Direction</i>	<i>Weight of Empty Vehicle (Kips)</i>	<i>Total Number of Vehicles</i>	<i>Number of Empty Vehicles</i>	<i>Percentage of Empty Vehicles</i>	<i>Total Weight of Vehicles with Freight (Kips)</i>	<i>Total Weight of Empty Vehicles (Kips)</i>	<i>Total Weight of Freight (Tons)</i>
4	SB	15	1059	165	15.6	28023	2079	7307
5	SB	8	10797	1674	15.5	131826	11726	29421
6	SB	19	4134	541	13.1	117178	8840	24455
7	SB	11.5	725	0	0	40977	0	16320
8	SB	31	1950	1209	62	28154	26833	2591
9	SB	33	14305	5505	38.5	525674	152349	117637
10	SB	33.5	2110	505	23.9	109767	14743	28000
11	SB	36.5	324	85	26.2	13436	2271	2356
12	SB	36.5	117	8	6.8	6804	199	1413
13	SB	31.5	100	1	1	8364	29	2623
TOTAL	****	****	35621	9693	****	1010204	****	232123
GRAND TOTAL	****	****	62007	13972	358	1862543	300965	438873

Table 5 Gross Vehicle Weight by Class and Lane

<i>Vehicle Class</i>	<i>NB Driving Lane</i>	<i>NB Passing Lane</i>	<i>SB Passing Lane</i>	<i>SB Driving Lane</i>	<i>Total</i>	<i>Percentage</i>
1	498	573	478	471	2020	0
2	814503	620573	834166	642098	2911341	40.8
3	505992	519911	478382	545799	2050084	28.8
4	14297	16993	6837	23266	61393	0.9
5	64270	79428	46385	97167	287250	4
6	42957	53763	24516	101501	222737	3.1
7	27643	16532	10274	30703	85152	1.2
8	18437	22673	11903	43084	96096	1.3
9	84551	425021	109194	568830	1187597	16.7
10	15056	25392	24210	100301	164958	2.3
11	864	11759	729	14978	28329	0.4
12	4577	4847	1126	5877	16426	0.2
13	1139	4037	685	7708	13569	0.2
TOTAL	1594783	1801502	1548885	2181782	7126952	100
GVW/LANE	22.38	25.28	21.73	30.61	100	0

Table 6 ESALs by Class and Lane and Flexible ESAL Factors

<i>Vehicle Class</i>	<i>NB Driving Lane</i>	<i>NB Passing Lane</i>	<i>SB Passing Lane</i>	<i>SB Driving Lane</i>	<i>Total</i>	<i>Percentage</i>	<i>Flexible ESAL Factor</i>
1	0	0	0	0	0	0	7e-04
2	101	66	106	62	335	0.9	9e-04
3	184	166	167	160	676	1.82	0.0041
4	339	317	147	424	1227	3.3	1.18
5	891	1030	470	998	3390	9.12	0.32
6	1595	1080	445	1681	4801	12.92	1.38
7	641	271	181	464	1557	4.19	2.13
8	480	351	144	388	1364	3.67	0.84
9	1622	7628	1716	9306	20272	54.56	1.74
10	194	332	382	1419	2326	6.26	1.62
11	6	235	9	298	547	1.47	1.87
12	99	59	44	96	298	0.8	2.13
13	51	88	22	198	360	0.97	4.26
TOTAL	6203	11623	3833	15494	37153	100	17
ESALS/LANE	16.7	31.3	10.3	41.7	100	-	-

Table 7 Site Summary: Volume and Vehicle Class

<i>Month</i>	<i>Total Volume</i>	<i>Monthly ADT</i>	<i>Monthly HCAD T</i>	<i>Passenger Vehicles</i>	<i>Passenger Vehicles %</i>	<i>Heavy Commercial Vehicles</i>	<i>Heavy Commercial Vehicles %</i>	<i>Heavy Commercial Vehicles in Driving Lane %</i>	<i>Heavy Commercial Vehicles in Passing Lane %</i>
Aug 2018	1185009	38226	2338	1112539	93.9	72469.6	6.1	61.4	38.6
Sep 2018	1060284	35343	2000	1000271	94.3	60012.8	5.7	62.2	37.8
Oct 2018	1084866	34996	2132	1018760	93.9	66105.8	6.1	61.6	38.4
Nov 2018	937276	31242	1772	884121	94.3	53154.6	5.7	60.6	39.4
Dec 2018	930046	30002	1504	883414	95	46632.1	5	60.6	39.4
Jan 2019	881451	28434	1620	831226	94.3	50225.1	5.7	61.3	38.7
Feb 2019	786575	28092	1649	740410	94.1	46164.9	5.9	62.3	37.7
Mar 2019	958807	30929	1610	908902	94.8	49905.2	5.2	62.1	37.9
Apr 2019	962362	32079	1594	914550	95	47811.7	5	65	35
May 2019	1046270	33745	1867	988387	94.5	57883	5.5	59.9	40.1
Jun 2019	1065465	35516	1951	1006926	94.5	58538.7	5.5	62.4	37.6
Jul 2019	1170433	37756	2082	1105891	94.5	64541.8	5.5	59.2	40.8
TOTAL	12068844	-	-	11395397	-	673445	-	-	-
AVERAGE	1005737	33030	1843	949616	94	56120	6	62	38

###ESALs

<i>Month</i>	<i>ESALS NB Passing Lane</i>	<i>ESALS NB Driving Lane</i>	<i>ESALS SB Driving Lane</i>	<i>ESALS SB Passing Lane</i>	<i>Total ESALS</i>	<i>Driving Lane ESALS %</i>	<i>Passing Lane ESALS %</i>	<i>Pavement Life Decrease Months</i>
Aug 2018	5680	16641	2158	21001	45480	59	41	2.5
Sep 2018	6002	14061	1404	17344	38811	60	40	2.7
Oct 2018	4620	15798	1569	19426	41414	58	42	1.3
Nov 2018	3470	13548	1397	15667	34082	56	44	2.6
Dec 2018	3150	10517	1329	12758	27753	57	43	2.4

Jan 2019	3323	12230	1296	15044	31893	58	42	2.1
Feb 2019	3621	10379	1146	13258	28405	59	41	1.6
Mar 2019	2986	10599	1079	13982	28646	59	41	1.7
Apr 2019	2688	7038	1141	14222	25089	67	33	0.5
May 2019	3613	11993	1449	14268	31323	57	43	1.2
Jun 2019	9436	21061	3719	28974	63190	61	39	1
Jul 2019	6609	11837	3842	15524	37811	59	41	2.7
TOTAL	55199	155703	21528	201468	433898	-	-	-
AVERAGE	4600	12975	1794	16789	36158	59	41	2

###Gross Vehicle Weight

<i>Month</i>	<i>GVW NB Passing Lane</i>	<i>GVW NB Driving Lane</i>	<i>GVW SB Passing Lane</i>	<i>GVW SB Driving Lane</i>	<i>Total GVW Kips</i>
Aug 18	1453125	2018291	1322478	2609501	7403395
Sep 18	1389961	1747847	1152367	2222883	6513058
Oct 18	1308390	1827931	1110723	2293147	6540191
Nov 18	1176117	1623806	1025112	1985221	5810257
Dec 18	1149792	1476541	1030529	1815082	5471944
Jan 19	1125027	1469786	949823	1852076	5396712
Feb 19	1024314	1306617	842483	1640893	4814307
Mar 19	1213935	1489460	1027517	1902639	5633552
Apr 19	1195607	1332212	1026882	1915963	5470663
May 19	1318970	1723874	1131963	2073887	6248694
Jun 19	2796503	3349865	2422840	4302709	12871916
Jul 19	1609593	1811100	1549550	2183375	7153618
TOTAL	16761333	21177331	14592267	26797376	79328307
AVERAGE	1396778	1764778	1216022	2233115	6610692

###Overweight Vehicles

<i>Month</i>	<i>Total Number of Overweight Vehicles</i>	<i>Overweight / Total Volume</i>	<i>Overweight / Heavy Commercial Volume</i>	<i>Number Over 88,000 lbs</i>	<i>Number Over 98,000 lbs</i>
Aug 2018	4748	0.4	6.8	226	74
Sep 2018	4151	0.4	7.1	220	70
Oct 2018	4558	0.5	7.4	184	71
Nov 2018	3394	0.4	6.5	209	75
Dec 2018	2392	0.3	5.2	140	40
Jan 2019	2941	0.3	6	137	49
Feb 2019	2522	0.3	5.6	87	39
Mar 2019	1828	0.2	3.8	86	34
Apr 2019	1493	0.2	3.2	62	26

May 2019	2111	0.2	3.7	110	40
Jun 2019	5152	0.3	4.5	224	82
Jul 2019	3542	0.3	5.6	230	51
TOTAL	38832	-	-	1915	651
AVERAGE	3236	0.3	5.5	159.6	54.2

###Freight

<i>Month</i>	<i>NB Freight Tons</i>	<i>SB Freight Tons</i>	<i>Total Freight</i>	<i>NB Freight %</i>	<i>SB Freight %</i>
Aug 2018	247311	274046	521356	47.4	52.6
Sep 2018	222327	220969	443297	50.2	49.8
Oct 2018	223564	249546	473110	47.3	52.7
Nov 2018	192487	192392	384879	50	50
Dec 2018	158161	156474	314635	50.3	49.7
Jan 2019	175183	176870	352053	49.8	50.2
Feb 2019	156505	160401	316907	49.4	50.6
Mar 2019	162605	173632	336237	48.4	51.6
Apr 2019	117790	188701	306491	38.4	61.6
May 2019	187128	197189	384317	48.7	51.3
Jun 2019	353894	404240	758134	46.7	53.3
Jul 2019	206750	232123	438873	47.1	52.9
TOTAL	2403706	2626584	5030290	-	-
AVERAGE	200308.8	218882	419190.8	47.8	52.2